



(43) International Publication Date
21 April 2005 (21.04.2005)

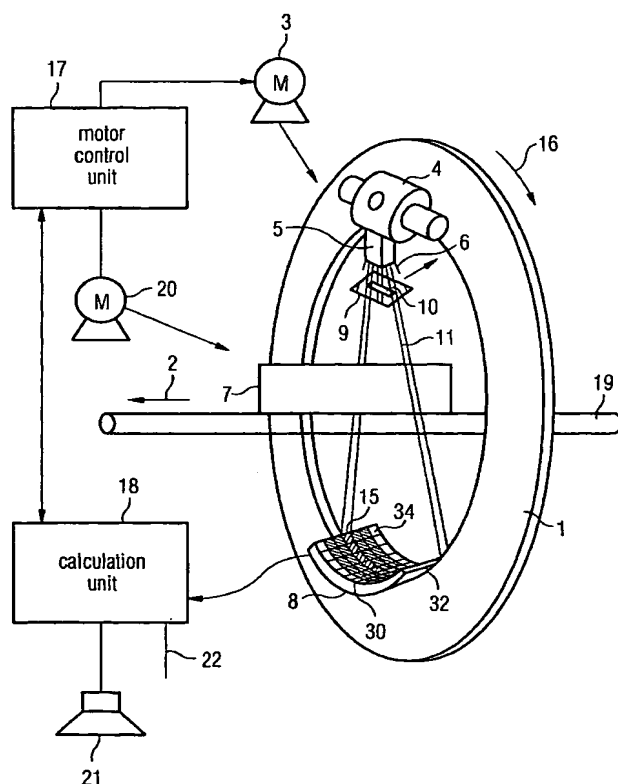
PCT

(10) International Publication Number
WO 2005/036147 A1

- | | |
|--|--|
| <p>(51) International Patent Classification⁷:
23/20, A61B 6/03</p> <p>(21) International Application Number:
PCT/IB2004/051967</p> <p>(22) International Filing Date: 5 October 2004 (05.10.2004)</p> <p>(25) Filing Language: English</p> <p>(26) Publication Language: English</p> <p>(30) Priority Data:
03103789.8 14 October 2003 (14.10.2003) EP</p> <p>(71) Applicant (for DE only): PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH [DE/DE]; Stein-damm 94, 20099 Hamburg (DE).</p> <p>(71) Applicant (for all designated States except DE, US): KONINKLIJKE PHILIPS ELECTRONICS N. V.</p> | <p>[NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).</p> <p>(72) Inventors; and
(75) Inventors/Applicants (for US only): VAN STEVEN-DAAL, Udo [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE). SCHLOMKA, Jens-Peter [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE).</p> <p>(74) Agent: MEYER, Michael; Philips Intellectual Property & Standards GmbH, Weissshausstr. 2, 52066 Aachen (DE).</p> <p>(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG.</p> |
|--|--|

[Continued on next page]

- (54) Title:** FAN-BEAM COHERENT-SCATTER COMPUTED TOMOGRAPHY



(57) Abstract: A reconstruction of data from CSCT data usually requires a long reconstruction time. According to the present invention, a filtered back-projection of CSCT data, wherein the CSCT data comprises a spectrum acquired by means of an energy resolving detector element is provided, wherein the filtered back-projection is performed along curved lines represented by the wave-vector transfer in the reconstruction volume. Advantageously, a reconstruction time may be reduced, while allowing for a good image quality.



PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.